

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application Serial No. 10/600,797
Confirmation No. 9695
Filing Date 6/20/2003
Inventorship Eric D. Brill
Appellant..... Microsoft Corporation
Group Art Unit.....2165
Examiner Michael J. Hicks
Attorney's Docket No. MS1-4081US
Title: Systems And Methods To Tune A General-Purpose Search Engine For A
Search Entry Point

REPLY BRIEF

To: Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

From: Dale G. Mohlenhoff (Tel. 509-944-4738; Fax 509-323-8979)
Customer No. 22801

Dear Sir:

Appellant's representative submits this Reply Brief pursuant to 37 C.F.R. §41.41 in response to Examiner's Answer dated April 24, 2009, in connection with Appellant's Amended Appeal Brief filed March 20, 2009. Appellant respectfully requests favorable consideration.

Grounds of Rejection to be Reviewed on Appeal

Claims 1-6, 8-16, 18-22, 29-40 and 42-43 stand rejected under 35 U.S.C. §102(a) as being anticipated by “Optimizing Search Engines Using Clickthrough Data”, Proceedings of the Eighth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, 2002, Pages 133-142, by Thorsten Joachims (hereinafter “Joachims”).

Claims 7, 17 and 23-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Joachims in view of “Learning and Revising User Profiles: The Identification of Interesting Web Site”, Machine Learning 27, 1997, Pages 313-331, by Michael Pazzani and Daniel Billsus (hereinafter “Pazzani”).

Rejections under 35 U.S.C. §102(a)

In the Examiner’s Answer, the Office has simply restated the same rejections of claims 1-6, 8-16, 18-22, 29-40 and 42-43 as provided in the Final Office Action of July 22, 2008. Appellant fully addressed these rejections in Appellant’s Appeal Brief. In the interest of brevity, Appellant will not repeat Appellant’s arguments from the Appeal Brief.

Rejections under 35 U.S.C. §103(a)

In the Examiner’s Answer, the Office has also simply restated the same rejections of claims 7, 17 and 23-28 as provided in the Final Office Action of July 22, 2008. Appellant fully addressed these rejections in Appellant’s Appeal Brief.

Again, in the interest of brevity, Appellant will not repeat Appellant's arguments from the Appeal Brief.

Response to Arguments

Appellant respectfully reiterates all arguments in favor of allowance made in Appellant's previously-filed Appeal Brief. No admission or comment is made with respect to any assertions put forth within the Examiner's Answer not addressed herein. Appellant further argues as follows in view of the Examiner's Answer.

In the Response to Arguments section of the Examiner's Answer, the Office disagrees with Appellant's assertion that Joachims fails to disclose a technique of maintaining sets of data in that Joachims does not disclose that "selection of a query can cause non-selected but higher ranked results to be added to a 'non-relevant' training data set." In an attempt to prove this point, the Office states that Joachims "clearly disclose[s] the second set of data categorized as non-relevant in that the relevant data is the data clicked on by the user while the non-relevant data is the data which the user did not click on." The Office notes "that the non-selected data may be determined to be related to the search query by the metasearch engines initial retrieval, but relevance is determined is determined by user click through data." *Examiner's Answer, pages 47-48.*

Appellant respectfully disagrees with this assertion. Appellant respectfully submits that Joachims still does not disclose that "selection of a query can cause non-selected but higher ranked results to be added to a 'non-relevant' training data set," as recited in Appellant's claim 1. The Office further asserts that "Joachims

indicates the use of non-relevant results to make absolute relevance judgments has several drawbacks, Appellant fails to note that Joachims discloses the use of partial relevance judgments.” *Examiner’s Answer, pages 47-48*. In essence, the Office asserts that “less relevant” and “non-relevant” mean the same thing.

However, merely because a query is ranked as “less relevant” does not equate to its categorization as “non-relevant.” For a query to be ranked as “non-relevant” and “added to a non-relevant training data set” indicates an absolute relevance judgment. “Non-relevant” indicates no relation to the query while “less relevant” indicates a degree of relation to the query. Joachims states that “[t]his means that clickthrough data does not convey absolute relevance judgments, but partial relative relevance judgments for the links the user browsed through.” *Joachims, Section 2.2, page 135*. Therefore, by Joachims’ own words, the clickthrough data approach does not provide absolute relevance judgment. That is, Joachims fails to disclose a “non-relevant” ranking and, as such, Appellant respectfully submits that the Office does not show that Joachims relates to a “non-relevant” set of data.

For at least this reason, Appellant respectfully requests that the pending rejection be overturned.

In the Response to Arguments section, the Office also notes “that all query and results pages are recorded in a query log, and as such, all of the results which were deemed non-relevant (e.g. non-selected), including non-selected results which were initially ranked higher, are automatically recorded in the query log.” *Examiner’s Answer, page 49*. Appellant respectfully disagrees. Joachims recites that “[e]ach query is assigned a unique ID which is stored in the query-log along

with the query words and the presented ranking.” *Joachims, Section 2.1, page 134*. However, Joachims does not disclose that the queries are stored after the tuning or ranking has been completed. Appellant’s claim language, however, states that “the first and second sets of data persisted to a computer-readable storage medium” indicating that the queries are stored after the relevant and non-relevant data sets have been created. Conversely, Joachims simply discloses that each query is stored in a query log “along with the query words and the presented ranking.” Appellant respectfully submits that this only indicates that only the initial queries are stored.

The Office further asserts that “the above arguments and citations make it clear that user selection of query results (e.g. user indication of relevant and non-relevant query results) cause addition to both the clickthrough data triplets which indicate the relevant results and the query log which contains the non-relevant results based on the user selections.” The Office further notes that “the claim limitations do not necessitate that the sets of relevant and non-relevant data are distinct lists.” *Examiner’s Answer, page 50*. Appellant respectfully disagrees.

Appellant reiterates that Joachims discloses that “[e]ach query is assigned a unique ID which is stored in the query-log along with the query words and the presented ranking.” *Joachims, Section 2.1, page 134*. The “presented ranking,” however, simply comprises the ranking initially presented from the search query and, as such, would not identify the “non-relevant” queries, regardless of whether or not they are contained in the query log. In addition, and as discussed above, Joachims’ click through data technique cannot convey absolute relevance

judgments. Therefore, Appellant respectfully submits that Joachims' query log could not identify non-relevant queries which are absolute relevance judgments.

Appellant, therefore, respectfully submits that Appellant's arguments within the Appeal Brief regarding the "non-relevant" aspects find support in Appellant's claims. Appellant further submits that, for at least the reasons presented above and the reasons within Appellant's previously filed Appeal brief, the Office fails to establish that Joachims discloses that the criteria for filtering the search results comprises at least "a first set of data categorized as relevant to a user's context and a second set of data categorized as non-relevant to the user's context, wherein user selection of a query result from a ranked list of the query results causes the selected result to be added to the first set of data and causes the results not selected by the user but ranked higher than the selected result to be automatically added to the second set of data, the first and second sets of data persisted to a computer-readable storage medium."

Conclusion

For at least the reasons provided above, Appellant respectfully submits that the rejections set forth in the Final Office Action of July 22, 2008 in connection with the subject application should be reversed. Appellant respectfully requests favorable consideration of this Reply Brief.

Respectfully Submitted,

Dated: June 24, 2009

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